

However, despite all of the efforts made, Leadbeater's Possum still is in danger of becoming extinct within 30 years. If this occurs, the extinction of this emblematic animal will not be due to a lack of understanding of the biology of the possum—it has been studied for 30 years—but because of the Victorian government's inability to properly manage the possum's habitat.

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Collaboration is the key: how partnerships can strengthen endangered species recovery

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Abstract

In the world of threatened species recovery—or indeed any environmental effort—there seems to be an ever increasing amount to do and an ever decreasing amount of funding to achieve it with. As the number of threatened species increases, so too does a growing group of organisations, government bodies, recovery teams, catchment management authorities, park managers, zoos, universities and community groups wanting to focus their efforts on helping these species avoid extinction. Contained within these groups is an array of expertise on particular species, practical conservation knowledge, research and on-ground action that can benefit species in their fight for survival. However, many environmental groups often work independently as they strive to save species, competing with each other for funding and resources even though all have a common goal. In order to be effective in threatened species recovery, collaboration may hold the key. This article will explore Conservation Volunteers Australia's Wild Futures program as an example of how collaborative partnerships can strengthen efforts towards assisting the recovery of endangered species. (*The Victorian Naturalist* 130 (4) 2013, 177–181)

Keywords: collaboration, partnerships, Eastern Barred Bandicoot, threatened species recovery

Introduction

It has been termed the 'Sixth Great Extinction Event'—the current timeframe in our planet's history of rapid and exceptional species loss across the globe—that's equivalent to catastrophic events such as ice ages and meteorite collisions (Eldredge 2001). Eminent biologist EO Wilson has made the dire prediction that half of the planet's flora and fauna species will become extinct by the turn of the 21st century (Wilson 2003).

Since European settlement, in Australia alone, at least 28 mammal species (including subspe-

cies), 4 amphibian species, and 23 bird species (including subspecies) have become extinct, as recognised under the *Environment Protection and Biodiversity Conservation Act 1992* (EPBC Act) List of Threatened Fauna (Australian Government 1999). Increasing knowledge about the rapid loss of species stimulates ever increasing motivation by groups and individuals to make a positive change to try to prevent further species extinctions.

Whilst motivations and a multitude of actions to assist species in need are on the in-

crease, finances dedicated towards the environment seem ever harder to obtain. With so many different causes and competing groups, government grants and philanthropic funding are spread thinly and many groups often miss out on funding. It is here that collaboration is the key: by combining industry knowledge and resources, it may be possible to make big steps towards rapid and successful species recovery in the face of seemingly limited resources. Indeed, around the world there is now an increased emphasis on partnerships and collaboration, which are central to supporting healthy communities and landscapes (Wyborn 2012). For some species teetering on the edge of extinction, combined efforts and successful collaboration may be their only hope for holistic recovery and management.

Conservation Volunteers Australia

For over 30 years Conservation Volunteers Australia (formally Australian Trust for Conservation Volunteers) has been one of Australia's leading environmental not-for-profit organisations in tangible on-ground action and landscape enhancement activities. The organisation combines conservation action with community, enabling people from all walks of life and from far and wide to take an active part in positive conservation activities that protect and enhance our precious landscapes and wildlife.

Since 1982, Conservation Volunteers Australia has been working with governments, local councils, community groups, park managers and local communities in engaging individuals in meaningful conservation activities for the betterment of the Australian environment. Over that time the organisation has grown to be one of the most effective not-for-profit environmental organisations, is recognised as part of the United Nations Global 500 Environmental Forum, achieved a number of Banksia Environmental Awards and engages over 12 500 volunteers each year in hands-on conservation projects around Australia and New Zealand. The organisation's core strength is in its community engagement, connecting people to the environment through practical environmental activities.

The Wild Futures program

In the realm of threatened species conservation and recovery efforts, it is often the exciting research endeavours or captive breeding programs that gain preliminary funding, with the no less important but often much less appealing habitat enhancement activities lacking the financial support. Although pulling weeds or erecting predator proof fencing may not be exhilarating to many, it is crucial to the important future step of returning some threatened species back to the wild.

Recognising the need for more funding, public awareness and community engagement to carry out this crucial on-ground work needed for threatened species, Conservation Volunteers Australia began their national Wild Futures program in 2006. This program provides an engaging opportunity for Conservation Volunteers Australia to focus their conservation and habitat enhancement efforts towards specific threatened species, helping to raise awareness and conservation action for that species through on-ground action, to improve overall biodiversity in specific areas through habitat restoration.

Species chosen for the Wild Futures program are often umbrella species, where efforts to enhance habitat for that particular species may also benefit many other sympatric species living in the same or connected habitat (Caro and O'Doherty 1999). For example, focusing efforts on rainforest protection and rehabilitation for Lumholtz Tree Kangaroo *Dendrolagus lumholtzi* on the Atherton Tablelands of Far North Queensland may also help to conserve many other species within and under the rainforest canopy, including other mammals, insects and birds, as well as raising the profile of the habitat types in which they occur. Species covered by the Wild Futures program are listed in Table 1.

Whilst Conservation Volunteers Australia's expertise centres on habitat restoration and conservation, each species has particular habitat requirements and conservation needs. To ensure that the most effective in-situ conservation measures are carried out, the Wild Futures program gathers advice from leading researchers and national recovery team representatives

Table 1. Wild Futures program — Focal species for 2013.

Species	Scientific name	State/Territory
Carnaby's Cockatoo	<i>Calyptorhynchus latirostris</i>	WA
Eastern Barred Bandicoot	<i>Perameles gunnii gunnii</i>	VIC
Growing Grass Frog	<i>Litoria raniformis</i>	VIC
Tasmanian Devil	<i>Sarcophilus harrisii</i>	TAS
Richmond Birdwing Butterfly	<i>Ornithoptera richmondia</i>	QLD
Red-tailed Black Cockatoo	<i>Calyptorhynchus banksii graptogyne</i>	VIC
Southern Hairy nosed Wombat	<i>Lasiorhinus latifrons</i>	SA
Lumholtz Tree Kangaroo	<i>Dendrolagus lumholtzi</i>	QLD
Flatback Sea Turtle	<i>Natator depressus</i>	WA, NT
Malleefowl	<i>Leipoa ocellata</i>	VIC
Red-crowned Toadlet	<i>Pseudophryne australis</i>	NSW
Powerful Owl	<i>Ninox strenua</i>	VIC, NSW

regarding the species' ecological requirements. This initial collaboration ensures the most timely and effective actions are carried out, combining expertise of threatened species ecologists with the on-ground landscape recovery expertise of Conservation Volunteers Australia.

In addition to habitat enhancement and conservation measures, the Wild Futures program aims to raise awareness of the threatened species through community engagement—another collaborative effort in itself. Curtis and Davies (2012) provide an example of Conservation Volunteers Australia's collaborative approach to management of habitat, outlining threatened species recovery efforts at Brookfield Conservation Park in South Australia. Here I outline another example, that of the Eastern Barred Bandicoot in Victoria.

Collaboration Case Study: Eastern Barred Bandicoot

The Eastern Barred Bandicoot *Perameles gunnii* is a rabbit-sized burrowing marsupial, once common throughout Victoria's basalt plains grasslands (Menkhorst and Knight 2001; Strahan and Van Dyck 2006). It is one of the few native grassland mammals on the mainland to have survived European settlement. However, with over 99% of its native grassland habitat cleared for grazing and agriculture, direct competition from rabbits, and predation by cats, dogs and foxes, its survival on the mainland now looks bleak and the fate of Eastern Barred Bandicoot population now relies on only a handful of captive populations (Menkhorst

1996; Strahan and Van Dyck 2006). The species is now listed as endangered under the Federal *EPBC Act 1999* and the mainland population is considered functionally extinct in the wild (Menkhorst 1996).

A small population of 60–100 Eastern Barred Bandicoots exists at Hamilton Community Parklands in western Victoria, with most of the population contained within wildlife parks such as Mt Rothwell Wildlife Sanctuary. The main breeding program is at Melbourne Zoo and Werribee Open Range Zoo and carried out by Zoos Victoria.

With the high fecundity of the species (Backhouse *et al.* 1994) and the captive breeding program of Zoos Victoria proving successful, the Eastern Barred Bandicoot Recovery Team identified the emerging issue in the need to find large areas of protected habitat in order to release captive bred bandicoots and continue to expand the breeding program success. Woodlands Historic Park in Greenvale (formerly Gellibrand Hill Park) was proposed as a suitable site for the reintroduction of the bandicoot. Woodlands Historic Park, a previous release site, had sustained a captive bred bandicoot population from 1988–1998, when factors such as dry conditions and competition from European Rabbits and Eastern Grey Kangaroos contributed to the decline of remaining individuals and eventual local extinction from the reserve (Long *et al.* 2004). The 300 ha site, known as the 'Back Paddock', needed over 7 km of new predator-proof fencing, weeding, planting and ongoing fence maintenance to ensure

that the habitat would be safe and suitable for the bandicoot. Parks Victoria, the manager of Woodlands Historic Park, did not have the capacity to re-establish and maintain the fence alone, and the Eastern Barred Bandicoot Recovery Team did not have the resources to set it up alone. Parks Victoria needed human capacity to erect, monitor and maintain the predator-proof fence; Conservation Volunteers Australia was looking for meaningful activities towards threatened species recovery for their army of volunteers. Each party had something to give and something to gain.

After discussions between Conservation Volunteers Australia, Parks Victoria and the Eastern Barred Bandicoot Recovery Team, it was recognised that a combined partnership would produce the skills, location, capacity and the opportunity to better source the capacity that was needed for such a project. A prospectus was put together and joint applications for grants submitted, resulting in the appointment of a project officer to oversee the program. With the expertise of the Recovery Team, assistance with site logistics from Parks Victoria and the on-ground action and management of a willing army of volunteers from Conservation Volunteers Australia, a first step towards the ultimate aim of endangered species recovery was made.

Along the way, other collaborators were included to the overall program, including with the Department of Environment and Primary Industries, Mt Rothwell Wildlife Sanctuary and Zoos Victoria, which further contributed to the strength of the project. Conservation Volunteers Australia also enlisted the help of corporate supporters to assist with additional finances and volunteer effort and was able to promote the program to the local and wider community.

Now, two years on, the predator proof fence is complete, with over 10000 volunteer hours invested into the creation and maintenance of the fence and surrounding habitat through planting native grasses and shrubs and removing weeds and predators to ready the location for the imminent release of the Eastern Barred Bandicoots. In June 2013, the first bandicoots were released into the site.

Why Collaboration is the Key

Collaboration brings with it a number of benefits. In a sector that is already crowded with passionate species advocates, it makes sense to pool our resources of expertise, time and money for the greater goal of species conservation and make strong, consolidated applications to funding sources, rather than consistently competing for the same grants and trying to achieve the same goal individually.

Other benefits include:

- Greater media exposure—a bigger story to tell, better network connections to get the word out there about your combined efforts or perhaps to a partner that has good media connections that you don't have (this is particularly helpful for smaller and not-for-profit organisations)
- Access to more varied knowledge, experience and technical skills
- Increased credibility or public exposure for your organisation or group by teaming up with well-respected partners, leading experts and larger organisations.

Philanthropic institutions and grant funding bodies also like to see efficiencies through collaboration. There can often be more 'bang for their collective buck', and a streamlined and concerted effort towards achieving success.

So, how do you go about it? Once you have determined your chosen species, need or niche and what you want to achieve, some thought and planning is then required to identify who your ideal partner should be for your chosen goal. There are some things to consider, such as:

- Who else is working in that space or with that species already?
- What can you offer to a partnership? (Skills, knowledge, materials etc.)
- Where are your gaps—what do you need?
- What is your common goal and how would you each contribute to achieve it?

A partnership should always be a mutually beneficial relationship and an important aspect of this is clear communication. Before embarking on a collaborative partnership it is advisable to formalise the details of your common goals and cooperative understanding in the form of a Memorandum of Understanding (MOU). Holding open discussions at the outset of col-

laboration can allow participants to get to know one another, building trust and shared understanding of the different perspectives in the group and shared goals (Imperial 2002). These talks also allow you to clarify common goals, discuss and designate responsibility of each organisation, decide on processes for media relations and project promotion (particularly important when collaborating with large organisations or government bodies that may have stringent requirements regarding publicity), agree on what an achievable end-point and milestones of success look like, and allow each party to develop a communication process to express any concerns or issues that might arise throughout the life of the partnership.

Once these finer details of the collaboration have been established and a formal agreement written up, it is also important to consult regularly with all participants throughout the partnership to ensure mutual goals are being met and all parties are content with the ongoing progress, commitment and achievements.

Collaboration can provide huge benefit to increasing an organisation's skill set, and give it access to a greater source of materials, expertise, exposure and ideas. Whether you are a researcher, organisation, community group or individual, collaboration may provide opportunities to access funding, increase capacity to achieve goals, and advance efforts towards threatened species recovery success. Pooling our collective resources, particularly skills and knowledge, is paramount if we are to make headway in the ongoing and seemingly insurmountable task of saving threatened species from the ultimate fate of extinction.

More information about this program and many more examples of successful collabora-

tion towards threatened species recovery can be found at www.wildfutures.com.au

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One Hundred and One Years Ago

FOREST PRESERVATION. – An effort is being made to arouse public interest in our rapidly disappearing forests, and an influential provisional committee was appointed at a public meeting held in Melbourne on the 28th October to organize a forest league. Membership was fixed at the nominal sum of 2s. 6d., and Dr. C.S. Sutton, North Carlton, who is acting as hon. secretary, will be pleased to enrol any persons interested.

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